

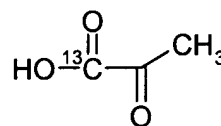
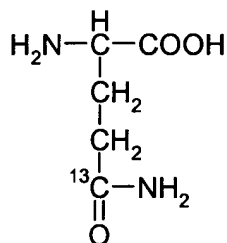
Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously presented) A method of magnetic resonance imaging of a sample, said method comprising:
 - i) administering a hyperpolarised MR imaging agent comprising non-zero nuclear spin nuclei into the sample;
 - ii) exposing the sample to a radiation at a frequency selected to excite nuclear spin transitions in said non-zero nuclear spin nuclei;
 - iii) detecting MR signals from the sample and utilising spectral-spatial excitation, in combination with line scanning, point scanning and/or steady state imaging techniques; and
 - iv) optionally generating an image, physiological data or metabolic data from said detected signals.
2. Canceled.
3. Canceled.
4. (Previously presented) The method as claimed in claim 1 wherein for steady state imaging FISP or PSIF pulse sequences with high flip angles are used.
5. (Previously presented) The method as claimed in claim 1 wherein said non-zero nuclear spin nuclei are selected from the group consisting of ^1H , ^3He , ^3Li , ^{13}C , ^{15}N , ^{19}F , ^{29}Si , ^{31}P and ^{129}Xe .
6. (Previously presented) The method as claimed in claim 1 wherein said non-zero nuclear spin nuclei are selected from the group consisting of ^{13}C and ^{15}N , especially ^{13}C nuclei.

7. (Previously presented) The method as claimed in claim 1 wherein said MR imaging agent is artificially enriched with nuclei having a T_1 relaxation time of more than 5s.
8. (Original) The method as claimed in claim 6 wherein the MR imaging agent has an effective nuclei ^{13}C polarisation of more than 1%.
9. (Original) The method as claimed in claim 6 wherein the MR imaging agent is ^{13}C enriched at carbonyl or quaternary carbon positions.
10. (Original) The method as claimed in claim 9 wherein said ^{13}C enriched compound is deuterium labelled adjacent said ^{13}C nucleus.
11. (Previously presented) The method as claimed in claim 6 wherein said ^{13}C nuclei are surrounded by one or more non-MR active nuclei or entities selected from the group consisting of O, S, C or a double or triple bond.
12. Canceled.
13. (Previously presented) The method as claimed in claim 1 wherein said imaging agent comprises a compound selected from the following:



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14. (New). The method as claimed in claim 3 wherein said non-zero nuclear spin nuclei are ^{13}C nuclei.

15. (New). The method as claimed in claim 1 wherein the sample is a human or non-human animal body.